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AUTHOR Harrison, Helen P.
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ABSTRACT

Prepared under contract with the International Council on Archives, this Records and Archives Management Programme (RAMP) study is designed to provide archivists, manuscript and museum curators, and other interested professionals with an understanding of the archival character of sound recordings and a set of guidelines for the appraisal of their archival value. The guidelines are based upon the most successful policies and procedures of those countries with the most extensive experience in the field of sound archives. Following a brief introduction, the study traces the history of sound recording and sound archives, provides a typology of sound recordings, and considers the particular and unique contribution of sound recordings to the general archival record. Records and collections management are also discussed, as well as archival policies and principles, with special reference to sound recordings and archives, and several practical examples of appraisal or selection policies in action are provided. Finally, the theories presented in the study are summarized, and guidelines are presented. In addition to a 162-item bibliography, a listing of 55 RAMP publications and related documents is provided. (KM)

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The Archival appraisal of sound recordings and related materials: a RAMP study with guidelines

prepared by

Helen P Harrison

with a contribution

from Rolf L Schuursma

General Information Programme and UNISIST

United Nations Educational,
Scientific and Cultural Organization

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PREFACE

The Division of the General Information Programme of UNESCO in order to better meet the needs of Member States, particularly developing countries, in the specialized areas of records management and archives administration, has developed a coordinated long-term Records and Archives Management Programme - RAMP.

The basic elements of the RAMP programme reflect the overall themes of the General Information Programme itself. RAMP thus includes projects, studies, and other activities intended to:

- develop standards, rules, methods and other normative tools for the processing and transfer of specialized information and the creation of compatible information systems ;
- enable developing countries to set up their own data bases and to have access to those now in existence throughout the world, so as to increase the exchange and flow of information through the application of modern technologies ;
- promote the development of specialized regional information networks ;
- contribute to the harmonious development of compatible international information services and systems ;
- set up national information systems and improve the various components of these systems ;
- formulate development policies and plans in this field ;
- train information specialists and users and develop the national and regional potential for education and training in the information sciences, library science and archives administration.

The purpose of this study which was prepared under contract with the International Council on Archives, is to provide archivists, manuscript and museum curators, and other interested professionals with an understanding of the archival character of sound recordings and a set of guidelines for the appraiser of their archival value. The study assumes no prior knowledge of sound recordings as documentary material of archival value, and should be useful to archivists in industrialized as well as those in developing countries. The guidelines it proposes are based upon the most successful policies and procedures of those countries with the most extensive experience in this field.

Comments and suggestions regarding the study are welcomed, and should be adressed to the Division of the General Information Programme, UNESCO, 7 place de Fontenoy, F-75700 Paris. Other studies prepared under the RAMP programme may also be obtained at the same address.

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FOREWORD

Appraisal and selection are essential elements in the archival process and this applies as much to the audiovisual materials as to any other kinds of archival material. The twentieth century has not necessarily been kind to archivists. Rapid technological advances in communication have made the historical record more diffuse and there is a far greater volume than we can even allow for in the printed word. It has been said that there are "many more documents with much less in them". Similarly the demands of researchers have become much more diffuse as more and more disciplines concentrate or engage in archival research.

The archival appraisal of "records" is at the same time the most important and perhaps the most difficult professional activity for the archivist. As James B Rhoads in another RAMP study observed once a decision is made to permit the destruction of a unique body of records it is irreversible and the information contained in the records probably will not be obtainable from another source.[120]*

This study maintains that the process of archival selection is a parallel process. For selection means ultimately the destruction of some records, that is, those which are not selected for retention. The destruction may be immediate or delayed for specified periods of time. However selection is essential.

Although selection is an essential element and has been practised for many decades, whether consciously or not, it does not feature prominently in the literature on sound archives. This study is therefore long overdue, and it is hoped this study will improve the situation and encourage others to consider the problem and publish their findings.

There is little formal background in the way of recommendations, published guidelines, or criteria on which this work can be based. Some citations dealing with archival principles in general can be used for reference, but the literature does not concentrate on problems of sound archives to any marked extent. The collection of conference papers taken from the International Association of Sound

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* Bibliographic citations and quotations are shown in the text by the number of the item in the bibliography appended to the study.

Archives entitled, Selection in sound archives, edited by Helen P Harrison,[66] contains some published and unpublished discussions of criteria for selection, including the General Records Schedule of the National Archives in Washington (pp 58-62), and the guidelines laid down by the Imperial War Museum in London (pp 116-128), and many of these will be cited here. But none of these existing guidelines has been accepted outside the immediate institution for which they were designed, and the present study will therefore attempt to draw together the various opinions and to formulate guidelines which will be relevant to the different situations which exist with regard to sound archives.

Although many archives have their own methods of selecting material, much has yet to be formalised and written down for the benefit of other archivists. There is a need for greater exchange of ideas and information in this important area. The present work is therefore designed neither as a definitive statement of selection in sound archives nor as an exhaustive study, but it is hoped that it will form the basis of a continuing awareness and development of selection principles for consideration by archivists dealing with recorded sound.

There is a precedent for this study in the RAMP study on appraisal of the moving images; film and videorecording. (The Archival Appraisal of Moving Images, prepared by Sam Kula, 1983).[86] The present study will follow this work closely, reiterating many of the principles arrived at, but allowing as necessary for the differences in materials and the circumstances of collection. The present work will also serve to indicate many of the similarities of approach and even treatment needed for audiovisual materials, as well as to indicate the similarities and differences in approach needed for audiovisual and the textual documents which have until recently been the accepted and major concern of the archivist.

The author of the present study is indebted to colleagues from The International Association of Sound Archives (IASA) who contributed to the series of papers at annual conferences which were published in 1984. Many of the ideas for the RAMP study have been generated or developed from these papers as well as from independent discussions. The recent growth of the audiovisual archival movement in general has also contributed many ideas to the present work. The author is particularly grateful to Rolf Schuursma for his valuable contribution to the study in the section on the history of sound recording and sound archives. His wealth of experience and sound advice have assisted greatly in the

completion of the project. Finally my thanks go to Rolf and Ann Schuursma for their assistance in compiling the bibliography. Any inadequacies in the study are, of course, the sole responsibility of the author.

The study begins with a brief history of sound recording and sound archives, designed to indicate the nature of the material with which we are dealing and the historic and current trends in the recording of sound and music throughout the past one hundred years. The development of the recording and the media upon which sound has been recorded plays an important role in the appraisal and selection processes; in determining what is available to the modern or current archives for selection, and in how archivists have collected the material.

A typology of sound recordings is included for the type of material will have an important effect on the formulation of retention policies, conservation, preservation and restoration.

Recorded sound is to be found not only in sound archives but also in audiovisual archives or archives which incorporate audiovisual materials. Sound is recorded on film and television material, and some sound is recorded on a medium similar to the moving image, especially when considering magnetic recordings.

Traditional archival theory may be applied to audiovisual materials but there are certain areas in which the materials involved will influence the theory and practice of archives. A number of these areas remain to be investigated. To date certain compromises have been made in order to ensure the serious consideration of audiovisual materials, but the time has surely come to recognise that the audiovisual materials are as worthy of archival consideration as any other source of information, and that some materials have their own particular and unique contribution to make to the general archival record.

Aspects of records and collections management are discussed in so far as they affect sound archives, and this leads to an analysis of archival policies and principles with special reference to sound recordings and archives. Several practical examples of appraisal or selection policies in action are also presented. The concluding section of the study summarises theories that have been developed and formulates recommended guidelines.

1. INTRODUCTION.

1.1 RAMP studies use the term "appraisal", but archivists in the field of recorded sound do not understand this particular term and tend to regard the process of selection as closely akin to that of appraisal. Is there indeed a difference or is it only one of semantics and usage in particular countries? For example, selection is more commonly used in Europe to describe the activity of decision making in retention and preservation policies, while in North America the word appraisal is used for initially determining the intrinsic and long term value and potential uses of records. Others use the terms interchangeably, and throughout this study "selection" and "appraisal" will be used in this way.

Appraisal is the intellectual decision making activity that precedes selection in common usage. Selection to reduce a collection to manageable proportions is, since the material has already been commissioned, more correctly, referred to as "reappraisal". In theory appraisal should precede, not follow accessioning, but this is seldom possible in audiovisual archives. Audiovisual archives usually deal with material which has been literally "collected" and not transferred to the archive in accordance with comprehensive schedules or as a result of a records management programme. The audiovisual archivist is much more likely to be dealing with material which has already been accessioned, often in haphazard order, and the task becomes one of weeding these accessioned materials into a more manageable, or cohesive collection.

Appraisal has been defined as the process of determining the value and thus the disposition of records, based upon their current administrative, legal and fiscal use: their evidential and informational or research value; their arrangement and their relationship to other records. A secondary definition is the monetary evaluation of gifts of manuscripts. Selection may be defined as the practical and controlled application of appraisal principles to a body of material.

Appraisal may also be aimed at determining the intrinsic value of the material. Intrinsic value is the archival term that is applied to permanently valuable records that have qualities and characteristics that make the records in their intrinsic form the only archivally acceptable form for preservation.

This is a very difficult decision to make in considering many audiovisual materials, especially sound recordings, because of technical reasons.

1.2 The nature of audiovisual materials and the attempts to build archives and collections of these materials are more likely to be based on "selection" of what is available rather than on appraisal of the long term value of the documentation of an institution, such as a business or a government agency. The sound archivist seldom has this amount of material to choose from, he deals in what has managed to survive until the point in time he considers collecting or preserving the material. This situation may change as a result of more adequate records management, but for the present it is very often a question of the archivist being presented with a collection of available material and then asked to make choices on the basis of his knowledge of the existing collection and the purposes of the repository.

Audiovisual records are therefore more closely related to the selection process than to the 'appraisal' process. Appraisal implies a more leisured activity whereby records or collections can be presented as a corporate entity to the archives which may take or reject at its final discretion.

With audiovisual archives the 'collectors' are seldom so well organised or so fortunate. There is a lesser degree of records management involved or evident. Audiovisual items are collected, acquired or presented for possible retention in a more piecemeal fashion. This is especially the case with moving images, but will also frequently apply to sound recordings.

1.3 Everything at some time may have some value. This surely is the dilemma of the archivist. If the archivist takes this attitude from the beginning then he is simply turning himself into a storekeeper. Some archivists and even donors might advocate that everything should be kept, and if it were to cost nothing to acquire, preserve and store archive materials then perhaps this policy of saving everything could be adopted. But to keep everything is a form of madness: archivists, like people are forced to pick and choose, and audiovisual archivists must often choose from an incomplete record. Others would go to the other extreme like the New York State Archives whose policy is "when in doubt, throw it out". What is surely required is something between the two, something which has called, "disciplined appraisal". Archivists should withdraw from a

race to acquire the total record - an impossible task with regard to audiovisual materials, including sound recordings, photographs and moving images, and they should concentrate instead on preserving materials selected in accordance with archival principles. Once again the principles of selection and appraisal are a necessity.

1.3.1 Selection is a necessity because of the volume of the material involved and the very nature of the material. Some sound archives have been in existence for nearly ninety years and the longer they exist the more necessary the process of selection becomes. Sound recordings were produced in the 1880s and 1890s, and the earliest sound archive was that established in Vienna in 1899. The fact that other archives were not established for a further 30 or 40 years has had a major effect on the collection of sound recordings and the necessity for and criteria of selection. Many of the early recordings did not survive long enough to be available to the archives.

Selection has been made even more imperative as a result of the increased ease of recording. With improvements in equipment and ease of handling such equipment to produce acceptable recordings, more and more people are recording material which can be regarded as of archival value.

1.3.2 Audiovisual materials are regarded as more difficult to preserve than paper documents. There is a cost involved, but there is a greater problem involved in locating information within the plethora of information available. Audiovisuals are very slow to work with, at both the input and at the output stage, they have to be listened to or viewed in real time. Unreasonable amounts of time needed in research due to large or confusing or mismanaged collections will often lead to the researcher giving up or looking for alternative sources. Therefore to try to keep everything can be argued to be as self-defeating as to keep nothing.

1.3.3 The volume of output makes selection inevitable. In addition to the commercial production of the recording industry there is a large non-commercial output and the output of oral historians and broadcasting. Where far more material is recorded than is transmitted, the unedited, untransmitted material may be potentially valuable for later usage. Specialized subject collections may also contain recorded material or the archivist may have conducted interviews which have been edited for public access purposes, but the unedited material has its own value. We

might also consider one area often overlooked, which is selection at the point of origin. This is the situation in which the sound archivist who initiates a recording needs to reflect on why he has to record this material, at what length he should be doing so, and whether or not he should edit the recording and then dispose of the material which is superfluous to the recording he intended or his present requirements.

1.3.4 Selection has been made even more imperative as a result of the increased ease of recording. As tape recording has become easier and the equipment less cumbersome, more and more recording is made possible by a greater variety of people. No longer is it the sole province of a technician to record material for preservation purposes. With improvements in equipment and ease of handling such equipment to produce acceptable recordings, more and more people are recording material which can be regarded as a useful record.

1.4 Post accessioning selection may also be used to reduce an archive or collection to manageable proportions. Unless selection principles are used we are in danger of sinking in a tangle of magnetic tape, under a sea of books, cassettes, videodiscs or computer software. Worse, we might disappear altogether into the computer hardware in search of that elusive piece of data which was not properly labelled.

And herein lies another powerful argument for selection. If we do not select with reasonable care then what is the point of spending resources of time and money documenting, storing and preserving material which is not of archival value?

Indeed it can be argued that it is a dereliction of our duty as information providers, whether archivists, librarians or information scientists, <u>not</u> to select the material for preservation and future use. Too much information can be as difficult to handle as too little; it is equally difficult to access and discover the material which would be most useful. The idea that, with the aid of modern technology you can store everything easily on convenient little cassettes appeals to the research worker, but how is he going to access a roomful, (and it has been expressed in that very term), of audio or videocassettes when each cassette bears from 3 to 6 hours of material; not necessarily in edited form. The research worker too frequently forgets that someone has to expend effort and time entering the information into the database in a retrievable or accessible order.

1.5 The criteria for selection of sound recordings have not been, and indeed cannot be, laid down as hard-and-fast rules, but it is hoped that those who consult this study will find many practical examples and working principles in the pages which follow. Examples of criteria used in different types of archives are included: these should assist sound archivists in arriving at reasoned, practical criteria for selecting material to store in archives for passing on to future generations.

2. HISTORY OF SOUND RECORDING AND SOUND ARCHIVES
compiled by Rolf Schuursma

2.1 The history of recording and reproduction of sound began in 1877 when Thomas Alva Edison, the American inventor and entrepreneur, constructed his phonograph. The simple instrument with which he was able to play back information, which he first had engraved on a sheet of tin foil around a cylinder, was based upon a great deal of previous research in many different countries. Indeed, already in 1854 the French typographer Léon Scott constructed a "phonautograph" with which he recorded sound on smoked paper. His invention was among others used by Professor Franciscus Donders as early as the 1870s for phonetic research at Utrecht State University. Another French inventor, the then well known poet and physicist Charles Cros, deposited the description of a machine for the recording and the reproduction of sound, the 'paléophone', at the Academie des Sciences in Paris in the same year in which Edison presented his phonograph to the world. Unfortunately Cros had neither the funds, nor the business talents of Edison and his invention did not get beyond a document in the archives. Edison, however, developed his instrument until it was ready for mass production. The phonograph became a refined and useful tool for the reproduction of music in many homes throughout the world. The quality of sound recorded on Edison cylinders was similar to that of the gramophone disc patented by Emile Berliner in 1888. However, because of its suitability for mass-production, the gramophone disc brought the production of Edison cylinders to an end in the 1920s. A few decades later - in 1948 - the long play record took over from the old 78 rpm (revolutions per minute) disc.

2.1.1 Edison's invention of the phonograph was a by-product of his research into high speed transport of Morse codes through costly telegraph lines. The Danish engineer Vladimir Poulsen did similar research into the reduction of the costs of sending telephonic messages. During the experiments Poulsen came upon electromagnetic recording and reproduction with the help of steel piano wire around a drum. His invention was patented in 1898 under the name 'telegraphone'. It was the first step on the road to the tape recorder which after the second World War became the medium for the professional and amateur recording of sound. The compact disc for digital audio information, developed in the Netherlands laboratories of Philips, was, however, probably the first basic break-through in sound reproduction since Edison, Berliner and Poulsen put their mark on the history of audio play-back technology.

2.1.2 Edison's phonograph was used as early as 1879 as an important scientific tool in an attack on Hermann von Helmholtz' vowel theory. The phonograph proved to be an excellent medium for research and it was only a matter of time before it was also part of the luggage of fieldworkers in anthropology and ethnomusicology. As far as we know the American ethnologist Jesse Walter Fewkes made the first field recordings - of American Indians - in 1889 and 1890. The elaborate use of the phonograph for field recordings in Hungary and other countries by Béla Vikar, Béla Bartok and Zoltan Kodály dated back to 1898 and led to collections which are still the subject of research by ethnomusicologists throughout the world.

2.2 In 1899 Professor Sigmund Exner, a distinguished physiologist at Vienna University and member of the Austrian Academy of Sciences, formulated a plan for a "Phonogrammarchiv", the first sound archive designed for that particular purpose. His proposals included the recording of language and dialects, ethnomusicology and so-called voice portraits of well-known personalities. On the basis of Edison's technology a special phonograph was designed for fieldwork, using a disc instead of a cylinder. From such discs masters were made for the production of copies of the original recordings.

2.2.1 The establishment of the Phonogrammarchiv was followed by the founding of institutions in other countries. The Phonogrammarchives in Berlin and St. Petersburg (Leningrad), the Archive de la Parole in Paris which later became the Phonothèque Nationale, the Discoteca di Stato in Rome, the Archive of American Folk Song (later the Archive of American Folklife) in the Library of Congress in Washington DC, and the Glinka Museum of Musical Culture in Moscow are well known examples.

Ethnomusicology proved to be a special field of interest for many sound archivists and field workers. Despite technical shortcomings the recording machines of those days offered unique opportunities to record traditional songs and instrumental music of countries where Western expansion had caused important changes in old cultural patterns.

2.3 The Phonogrammarchives in Vienna and Berlin and many archives of later date did not restrict themselves to the collection of recordings, but were active in making their own and in stimulating expeditions to other continents in order to collect unique registrations for preservation and

analysis. From the beginning the Vienna archive stressed the importance of professional technical quality of the recordings. It also documented the circumstances of the recording procedure of each authentic record.

2.3.1 Another source of valuable archival acquisitions were the rapidly growing numbers of cylinder and gramophone recordings of Western art music and light entertainment. In that field many sound archives started to function as builders of enormous collections of records which added a completely new dimension to the study of music and the changing ways of composition and performance practice. Recordings of spoken word proved valuable for the comparative research of languages and dialects. The specific opportunities of sound records as a source for contemporary history came to the fore, however, only when broadcasting institutions began to make and to preserve recordings.

2.4 Broadcasting was preceded by closed circuit cable networks for small groups of listeners. The transmission of music from concert halls and theatres to individual listeners at home was, for example, first undertaken in 1881 in both Paris and in Leeds. The particular kind of cable distribution was still in use in the first decade of the twentieth century, but disappeared probably under the influence of regular radio transmissions which were announced in advance to the public at large. Transmissions by broadcasting stations came into being in the beginning and the middle of the 1920s in most European countries, the Soviet Union, the United States and Japan.

2.5 Probably under the influence of the gramophone record industry, the replay of commercial records was not everywhere immediately possible (the British Broadcasting Corporation received permission only in 1933 after a decade of broadcasting). Later, however, as a by-product of music programmes, extensive collections of gramophone records came into being. Radio stations also discovered the gramophone as a tool for the recording of their own programmes, either in the preparatory phase or as a medium for the registration of live concerts and other performances for later use. With great skill technicians were able to play preselected parts of gramophone discs during transmissions, thus combining recorded scenes with live interviews and speeches. The use of magnetic tape was as yet unknown and the art of editing very complicated. As a result, however, many recordings of the early days of radio, including much raw material that had never been transmitted, were saved as valuable historical documents.

2.5.1 It is doubtful whether at an early stage broadcasting institutions made it a part of their policy to establish sound archives. Some radio stations preserved recordings as a more or less accidental by-product of programme activities. Organisations like the BBC soon discovered the value of departments specialising in preserving, cataloguing and making accessible the sound recordings in their possession.

Radio stations in several countries even kept separate archives of commercial recordings and of their own programmes - a situation which is for instance typical for the BBC and the radio archives in Scandinavia, to name only a few. Other organisations preferred to combine both categories of recordings into one archive. Whichever solution was chosen, the collections of broadcasting institutions now account for the biggest and most pluriform sound archives in the world. They were established for the use of the programme-makers and were therefore closed to outside researchers and the public at large. Only in recent times organisations like the BBC and the Netherlands Broadcasting Foundation, NOS, to name but two, have found ways to make at least a part of their collections accessible. This has occurred through the help of sound archives outside the radio sphere, such as the then British Institute of Recorded Sound, the Imperial War Museum and - in the Netherlands - the Foundation for Film and Science SFW.

2.6 Sound archives of every kind profited greatly from new technical developments. During the Second World War Poulsen's magnetic recording underwent further development: in the USA with the use of wire, in Germany with tape. After the war the tape recorder became an important instrument for archival purposes, both in broadcasting organisations and in sound archives outside the realm of radio. Soon high quality portable recorders helped radio reporters as well as researchers to carry on their work without the complicated procedures necessary for operating the old gramophone recorders. The new field of oral history particularly profited from tape technology. In 1948 the American historian Allan Nevins established the Oral History Research Office at Columbia University in New York, concentrating his efforts on taped interviews in leading circles of American society. Later historians, principally in Great Britain, used the tape recorder for interviewing the man in the street, thus enlarging traditional written records with oral evidence. Several sound archives throughout the world became specialised in this field, amongst them the Department of Sound Records of the Imperial War Museum in London.

2.6.1 With the help of the tape recorder other archives concentrated on anthropology and ethnomusicology, for example the sound archives of the Centre National de la Recherche Scientifique in Upper Volta, the Centre for Nigerian Cultural Studies at the Ahmadu Bello University in Zaria, and the Ethnomusicology Archive of the University of California at Los Angeles. Tape became a major tool in sound archives because of its obvious advantages. The professional technical and documentary standards, first established by the Vienna Phonogrammarchiv, were also applied on a new medium and are now widely recognised, thanks amongst other things to the unfailing effort of many sound archivists and technicians.

2.7 The technical developments of the post war period, including digital technology as applied in the compact disc, have brought about a close cooperation between the various audiovisual spheres of archival interest. Sound tracks of feature films, audiovisual presentations of complete operas, visual complements to oral history interviews, video recordings of performances of traditional music or theatre plays and many other examples point to a growing integration of the different fields of audio and video documentation. The organisational consequences of the changes in technology have become clear in several institutions. The Swedish National Archive of Recorded Sound and Moving Images (ALB) was established in Stockholm in 1979 with a view towards the integrated archiving of sound and pictures. The Public Archives of Canada and the Südwestdeutscher Rundfunk are examples amongst many other institutions of a growing integration of audio, film and video. Particularly in broadcasting archives a growing integration is anticipated, and of course related to this is the increasing convergence of the technology used.

2.8 It took a long time before sound archives began to cooperate on an international basis. Western European broadcasting sound archives had discussed their problems in the European Broadcasting Union without, however, any close type of organisation within that body. Music sound archives, including many radio archives, met for many years in the Record Library Commission of the International Association of Music Libraries (IAML). American and Canadian sound archivists convened in ARSC (Association for Recorded Sound Collections). Efforts to unite sound archivists in a Fédération Internationales des Phonothèques did not bring lasting results. However in 1969 an initiative of IAML led to the establishment of the International Association of Sound Archives (IASA) which now unites a great many sound archives and archivists in the

world. The organisation convenes annually together with IAML because of the many common interests in the extensive field of music. However IASA covers spoken word as well, and in particular archival interests in oral history play an important role in the annual conferences. Recently the radio sound archivists in IAML and IASA decided to establish a Radio Sound Archivists Committee of IASA, thus providing this large group of archives with an organised forum for international cooperation, both in the field of music and of the spoken word. Since 1971 the Phonographic Bulletin is the most important medium for communication between the members of the Association. IASA also takes part in the annual Round Table of the Non-Governmental Organizations associated with Unesco, that deal with archives and libraries in the audiovisual field.

3. TYPOLOGY OF SOUND ARCHIVES AND SOUND RECORDINGS

3.1 Sound archives come in many different guises, ranging from national archives exclusive to sound, such as the National Sound Archives or the Finnish Institute, to those incorporated administratively with a larger institution. One example is the National Sound Archive in England, now housed somewhat uncomfortably within the British Library. Some audiovisual archives combine into a single administrative department (usually found to include film, video and sound recordings). Examples of this include the Public Archives of Canada and the Library of Congress in the USA. The National Film and Sound Archive in Australia has yet another configuration.

The large radio archives are often linked to or integrated with other audiovisual archives within the broadcasting company but where the lines of command may run through the medium. eg. radio archives linked to the tv archives but administratively responsible to a radio controller.

In the many different types of sound archives differences in administration or function frequently indicate or highlight differences in appraisal policies.

3.2 In addition to dealing with the typology of sound archives, it is appropriate to consider the different types of sound recordings which have been developed, and also which of these can be expected to find their way into the archives and the relative numbers involved. Conservation and preservation policies will have to be geared to the recording media used as well as the numbers of the recordings which become part of holdings of the archives.

3.2.1 The major materials contained in a sound archive today are on disc, magnetic tape and, most recently, compact disc.

However, sound recording has a long history and material was originally produced in other formats, including the tinfoil cylinder phonograph (1877) and then the wax cylinder (1885). Further developments resulted in the flat disc in the late 1890s. These were originally produced using wax but later metal was used for producing the masters and pressing was done on shellac. Finally (and rather like motion pictures when the camera was made to run at a constant speed instead

of the sometimes erratic hand cranking), the record turntable was made to revolve at a constant speed thus improving the recording medium. Since the Second World War there have been considerable improvements in sound quality and the development of long playing records (since 1948) and stereo recordings (since 1958).

3.2.1.1 Recordings, even disc recordings, have not always been as standardised as they are today. The early, so-called, coarse grooved discs were produced at speeds varying from 78 revolutions per minute (rpm) to 90 rpm and these discs came in diameters ranging from 7" - 10". This was later standardised as the 78rpm 10" - 12" diameter disc. Then the microgroove discs were developed running at 45rpm or 33 1/3 rpm and produced in 7", 8", 10" and 12" diameter and became popular. The microgroove disc is produced in monophonic, that is one channel per groove, stereophonic (2 channels per groove), and quadraphonic (4 channels per groove) sound systems.

3.2.1.2 Magnetic tapes are also currently used extensively. These can be reel to reel tape, cassette, or cartridge. Reel to reel tape runs at 3 3/4 inches per second (ips), 7 1/2 ips or 15 ips full, twin or quarter track in monophonic, stereophonic or quadraphonic sound, while cassettes normally run at 1 7/8 ips. Cartridges of magnetic tape contain up to 8 tracks of recording, and run at 7 1/2 ips.

3.2.1.3 Other more unusual materials include the wire recordings, steel tape, Philips and Miller non-photographic film recording system, and wax cylinders. There are also recordings made for particular instruments, the pianola rolls used earlier this century have been restored in several instances to produce surprisingly good quality modern reissues of the recordings.

3.2.1.4 Finally the more recent systems for recording sound include the compact disc systems, the helical scan recorder working digitally on 8mm tape for sound, with rotary digital audio tape (R-DAT), in which the reading head rotates, or stationary (S-DAT) where as the word implies, the reading head remains fixed, and the domestic video 8 format whereby a video tape is used for recording sound alone or sound and vision.

3.2.2 Despite this variety, sound recordings are remarkably standardised when compared with many other types of audiovisual material, and this has implications for conservation, storage and also appraisal. Each of these materials and systems will have a significance for the appraisal and selection of the recordings. Some systems will require rerecording in order to preserve the content, some will require transfer to a more stable material, while others may require transfer to a usable material. For example, magnetic tape may deteriorate to a point at which drop-out or print-through is occurring, or may be part of a system which is rapidly being outdated or becoming obsolete. There are also systems, such as the broadcast standard tape at 15 ips, requiring expensive replay machinery which in itself may mean there is a barrier to access for the research user.

3.3 Many if not all of these recordings will have inherent problems of deterioration and preservation necessitating some consideration in the appraisal process. Recordings at 78 rpm were shellac records. In an article dated July 1970 in Recorded Sound, John Stratton[150] describes the arch-enemies of the shellac record - moisture and fungus - which produce a hailstorm of crackle on the recording. Filtering is not always a solution. It will eliminate much of the crackle but may gain a bad reputation for the engineering fraternity by producing flat recordings by reducing the bandwidth and possibly the dynamic range at the same time.

Where metal masters or matrices exist they should be used to produce new recordings which will eliminate the crackle problem. But not every record has an original associated with it and it may not be possible to return to an original matrix. In the same way record companies when releasing old 78 rpm on LP transfer will do a reasonable amount of work on the recording, but in order to reach the widest possible market, may of necessity resort to overfiltering. Other restoration work may take hours, even hundreds of hours, of painstaking work. For archive work and the preservation of disc recordings, therefore, the archivist needs to have access to, or should retain the original metal masters wherever possible.

Modern technologies, including digital techniques of recording, are being employed for long term preservation of recorded sound. While digital recording will give improved quality, the recording medium used not in itself be permanent. Tape, and particularly cassette tape, has problems of its own; problems of dropout, stretching, warp and distortion.

3.4 The newer disc technology including the compact disc is supposed to have long term preservation properties. However, it does not necessarily have a value for restoration of archival materials because what must be preserved on the compact disc is the clarity and suitability of a sound recording for modern technological recording. In discussing the compact disc it must always be remembered that the disc itself is not necessarily going to last indefinitely. It is not the panacea for sound and other archivists, nor the solution to all our problems. There are already indications that the compact disc, like many other materials involved in the new technology, will be subject to problems of deterioration from atmospheric conditions.

Most discs, including all commercially produced compact discs, are mechanically pressed, although a few experimental discs are etched. The compact disc is similar to a standard LP but with much finer tolerances. About 60 CD tracks can be accomodated on one LP groove width. This means that very clean pressing conditions are required. The slightest speck of dust will produce errors. The digital coding does include powerful error detecting and correcting systems, but these obviously have limits.

The information is pressed into a disc of clear plastic which is then coated with a very fine layer of highly reflective pure aluminium. Any holes appearing in this layer will create more errors for the correction systems to overcome. Finally, a thin layer of lacquer is applied to the aluminium and the label attached to the lacquer. This disc should prove a source of high quality audio for many years, but there are problems at the molecular level. The plastics allow gases to creep through the layers very slowly. Over a period of years, oxygen atoms reach the aluminium reflective surface and convert it to aluminium oxide. More and more errors will occur, even though these may be overcome by the correction systems for a period of ten years or more. Eventually the point is reached where the disc is effectively unplayable. The information is still on the disc as the pits pressed into the plastic have not been affected but it cannot be satisfactorily recovered. If the disc is copied before this point is reached it may be possible to regenerate the recording, providing the error corrections system is not overloaded. The archive will have to pay a high price for this in technical resources, and it is not at present a realistic option for any but the most valuable CD recordings. The master may be a suitable medium for long term conservation, if what is recorded on the master is suitable in the first place, and not just a third

generation restored copy, but it will be necessary to retain the archive copy in the master matrix, not a degradable copy. Once again the original material must be kept for later regeneration.

3.5 All of these factors have implications for technical appraisal. It is essential that the archivist takes account of the actual material deposited in the archive as well as the original material. It is absolutely essential when appraising a technical restoration or re-recording to have adequate and detailed documentation of where the recording was taken from, the original it was taken from, and also what was done to the recording in order to bring it to the quality which exists in the archival preservation copy. This will permit people in the future to go back over the work of the technician and perhaps, with sympathetic treatment, enhance the recording when the technology develops sufficiently to improve upon the original restoration.

4. ARCHIVAL APPRAISAL AND SOUND ARCHIVES

4.1 Before embarking on a discussion of the appraisal of sound recordings and other audiovisual materials which contain sound as an integral part, it will be useful to examine the nature of sound archives and implications of archival theory of appraisal. For the nature and contents of certain archives, especially audiovisual archives, will often determine and influence application of the principles of appraisal and selection which will be necessary and used.

Although this study will concentrate upon sound recordings there is a marked tendency for the audiovisual materials of the moving image that is, film and video, and sound recordings to be acquired by the same archival repository, especially in view of the increasing convergence of the technologies.

4.2 Audiovisual materials can be housed together or they may be maintained separately, but as with most archive materials the lines of demarcation between audiovisual materials are often not distinct. Film has sound on it, magnetic recording may have sound alone, music and effects, or it may have sound and images, or it may be a purely visual record.

4.2.1 Converging technology is also having a marked influence on the trend to collect a variety of audiovisual materials rather than one type alone. This is especially evident with magnetic recording and with the disc technologies of compact disc and videodisc, which can be used more and more interchangeably to carry sound and visual images, either still or moving.

4.3 Appraisal is a relatively new concept in archives management, and it is an even younger concept in audiovisual archives management. The appraisal of sound recordings has scarcely begun for two obvious reasons. Collections management has only recently become a major factor, for collection <u>per se</u> has been the all important issue up to now.

4.3.1 Sound recordings when looked at alongside motion pictures present less problems in terms of storage space and it can be argued that there are fewer financial burdens in

the mere collection, storage and conservation of stock. This latter may seem a trite statement, but it is one of the main reasons for the delays of sound archives in setting up selection or appraisal policies. Until recently it has been possible to store and conserve a larger proportion of the sound materials which have been produced due to more favourable parameters of cost of production and storage space and replay devices than, for example, the production of moving images. Restrictive selection policies have not as yet been forced upon sound archives.

4.3.2 Another reason for the lack of selection policies in sound archives is the nature of the collection of audiovisual materials where legal deposit may be unknown and the archivist ends up by accepting everything offered in the hope that some day he will be able to rationalise his collection.

A 1972 ICA report which linked the archives of motion pictures, photographic records and sound recordings, was the first significant recognition that audiovisual materials were archival materials.[83] Other important recognitions of the archival charter of audiovisual materials were the policies of the US National Archives dating back to 1934, the policies of the BBC (1979)[15] of the British Records Association Working Party on Audiovisual Archives[16] and of the ICA Working Group on Audiovisual Records.

4.3.3 IASA, which might have been expected to lead the field in administration of sound recordings, has not as yet produced guidelines for collection, appraisal or selection although the recent publication, Selection in Sound Archives begins to address this problem area.[66] This is an indication of the extent to which concentration has been placed to date on acquisition. The problems with this narrow emphasis is that the real burden of costs will fall on future archivists unless adequate attention is given to the activities of records management, appraisal, accessioning, bibliographic control, and conservation.

4.4 The extent to which collection or acquisition has been carried out without adequate attention to these other considerations and activities is reflected in the literature.

The present study attempts to remedy this situation by examining guidelines and principles already developed for

other types of archival materials, especially for audiovisual materials. Problems of the integration of sound archives with other types of archives also have to be taken into account. For example, should one select material in all genre that is relevant to the collection or the collecting institution, or should one select only the most appropriate genre that is being used - and how does one arrive at this decision? There are also questions as to who should be doing the selection which need an answer. The purpose of the repository, that is, its function, will undoubtedly have an affect on the appraisal policy.

4.4.1 There are inevitable constraints placed on any archive which make it necessary to adopt selection policies. These constraints may be purely basic and arbitrary ones, such as space or the high cost of storage, or they may be constraints imposed by the available resources in terms of people, time, and the financial burden of preparing the material for storage, conservation and subsequent access.

Further discussion is needed of the concept of intrinsic value of sound material and the permanent and interim value of such material.

4.5 As archivists of a fairly new technology sound archives must define a "sound archive". An initial reaction may be - instinctively - that a sound archive is different from a conventional (paper) archive.

A sound archive may have the same policies, philosophy and similar aims in the preservation and collection of a particular slice of human activity as any other archive. This slice may be the large one of an era, century or decade, reflecting the cultural and social life of the times, or it may be restricted to a smaller slice which records particular aspects of a special place, a restricted period of time, or particular subjects on one or more materials. But the acquisition policies, the principles of arrangement, organisation, access, security, conservation and preservation of audiovisual materials are different to the extent that they require modification or adaptation of traditional archival practices. There are differences in degree in the application of archival principles to textual and non-textual materials, and these differences are not confined to the material of which the record is made. Many of the fundamental differences relate to the content of the record and how it is acquired and organised.

4.5.1 There is another type of collection closely allied to archives, and it is this type of collection which is probably more appropriate to consider as an audiovisual archive.

This is the collection of last resort. Audiovisual archives are so often in this category that we should begin to merge the two types. Collections of last resort represent the attempt to conserve copies of material in usable condition - at least for reference purposes - and they seldom retain archival originals or masters in the accepted sense. Many audiovisual archives fall into this category whether they acquire sound recordings, film or video. Audiovisual archivists are familiar with having to transfer material from one obsolete or deteriorating format or medium to a usable format, and then deciding what to do about the original material. A collection of last resort is very often the best that can be achieved. The original material may have to be destroyed, although not necessarily, but like nitrate film many of the audiovisual carrying materials have a self-destructive nature and will deteriorate without any intervention from the archivist or curator. What should be saved from the material is very often the subject content of the material and this, in an audiovisual archive context, is what should really be emphasised. The preservation of the content for reference is the objective, rather than preservation of the badly degraded, decomposed or technologically outdated original.

4.5.1.1 The original should not always be destroyed of course, and need not necessarily be destroyed unless it is in a dangerous condition. There is always the possibility that developing technology will improve restoration techniques, especially with sound recordings and materials recorded on an originally stable medium. Such materials can be retained in their original format in the hope that new, or developing, technology will shortly reach the stage at which the material can be saved and rerecorded on to a more permanent format for the archivist, or in a more acceptable format for the listener.

One of the traditional implications of the word archives is that the original documents, or documents as close to the original as possible, should be preserved.

4.5.1.2. With audiovisual archives it is seldom if ever possible or practicable to preserve the original document for reasons of wear/tear/damage, unsuitability of format or

obsolescence of playback mechanism. It may nevertheless be prudent in some archives to preserve and provide access to materials such as sound recordings which have a high degree of deterioration, but which are not dangerous in the same way that nitrate film is dangerous. Such materials should be conserved in as good a state as possible in the hope that technology will advance to a state in which better preservation or conservation copies can be produced. Until this future improvement in technology arrives, however, some form of reference copy of the material will be required, if for no other reason than that the selector or archivist may judge from the material whether further restoration or conservation is required.

Therefore inevitably archives of audiovisual materials are preserving material close to the original recording, but rarely on original stock. Transfer to usable stock is frequently and inevitably a fact of life for the audiovisual archivist.

4.5.1.3 Transfer to a usable medium may mean that audiovisual archives become more interested in the preservation of the subject content of the material rather than the original material, and this will frequently influence selection policies.

It also leads directly into the 'last resort' situation of collecting. Should one preserve the original at risk of its becoming unplayable or unusable, or do you transfer it to a usable format and at what loss?

This verges on a consideration of the ethics of acquiring audiovisual materials and raises technical appraisal implications. The quality of recording can be made better, but does it distort content in some way? The thinking in this area refers particularly to performances of musical works for example. If we wish to hear subtleties of tone in a performance - can we judge adequately after restoration has taken place? Can we legitimately compare a recording of a musical work of Rachmaninov by the composer and by Ashkenazy, doing justice to both or either?

4.5.1.4 The initial enquiry was whether a sound archive is different in intent and purpose from other types of archives. Sound archives are normally different in content, and not only in the physical format. Many archives are coherent and functionally related bodies of documents;

audiovisual archives are seldom so, unless specialised or devoted to one subject or one person's output.

However the appraisal of sound recordings increasingly cannot be considered in isolation. There is a clear move towards integration of sound archives with other types of archives, especially at the national level.

4.6 Before appraising material for inclusion in an archive you have to know what that archive will contain - ie. its purpose and function, in order to be able to appraise the suitability of material for inclusion.

If one purpose of an archive is to fulfil a research need, an idea of the types of research which will be carried out is required. This is almost as difficult to judge as is appraising material. A related question is the point in time that the research will be carried out.

4.7 In the case of audiovisual materials it may not be possible, or practical, to include original documents. If recordings have been restored, a decision must be made as to when a recording is regarded as non-original and when as a copy or facsimile.

4.7.1 Recordings differ from film and the moving image in this respect. Sometimes film has to be copied because of its volatile nature, for example nitrate. Badly scratched and damaged film may possibly be repaired and restored, but some is beyond today's or tomorrow's technology - a judgement that only a technical expert can perhaps give but which is inevitable, and which should be an essential part of the appraisal procedure. Recordings may be kept for longer than many films, especially those recorded on disc. Disc surfaces do not deteriorate as fast as nitrate film, but the surfaces may be attacked by fungus and mould. Other difficulties of early recordings are distortion and the amount of extraneous noise which gets on to the recording.

4.7.2 Archives are not just random collections of material, but rather collections which have been selected for a particular purpose because they represent business, legal or cultural aspects of life in a certain period of time. Archives are normally defined as non-current, but permanently valuable records. The material may be valuable as evidence of legal and administrative transactions and

obligations, or because of the information it contains which is of value beyond the reasons for its original creation. This is the traditional view of archives. Most of these are "paper archives", but film and video, sound recording or photographic archives are not necessarily "official" archives in the same sense. They are much more likely to be archives of our current or recent culture. Given the technology involved in audiovisual archives and the material which results, this cultural heritage is mainly of the late nineteenth and twentieth century, and educational audiovisual archives are among the youngest of these institutions.

4.8 Selection is a form of decision making and is usually based on a set of principles or guidelines. In many cases these principles have never been published and such is the case with sound archives.

Selection is arguably the most important and at the same time the most difficult of all the activities of the archivist or curator, especially those dealing with audiovisual materials. It is an essential element of the archival process, and imposes a discipline on the collector almost from the beginning. A collector may not normally consider selection immediately, but the very consideration of what to collect or how wide a range of material one includes in a collection is one of the first principles of selection.

As individuals we are constantly making selections in everyday life, and most of our everyday decisions are forms of selection. Decisions are taken almost unconsciously according to whim or circumstance. But selection takes decision-making much further than this, it is usually based on a set of principles or guidelines.

Collectors of sound recordings are allowed to have their own predilections or whims, and this is not to denigrate their purposes, for without collectors the material may not have been saved.

However, collections grow and very soon some process of selection, or weeding or discarding becomes necessary.

4.8.1 The collector may be working within his own parameters of cost and space, and it is his own decision as

to what is kept and what is disposed of by exchange, sale or destruction. Others may question his decisions but are not in any position to criticise unless they do something positive to assist in the retention or preservation of the collection in part or whole.

A collector can be subjective in his approach, but an archivist should be objective, and a selection policy or set of principles is needed here to provide a framework for collection appraisal and selection.

4.8.2 Some form of records management is essential to impose an order upon the record and make it manageable and accessible to future users of the archive, whether these users are researchers, browsers, those with a commercial concern to reuse the material, or interested members of the general public.

Selection is thus a necessary process and should be considered from the outset. It need not happen immediately, but with any volume of material the need for it will quickly become apparent.

Selection, like management, is not an exact science; if it were then the archivist might have exact criteria and theorems to guide him. Nor is selection solely an art. It can be argued as more of an art than a science, but it is preferable to consider selection as a craft, practised to achieve certain ends with suitable criteria or guidelines to meet these ends.

4.9 The basic principle of selection for an existing collection is to preserve that material which has significant evidential or research value, and then the purpose of selection is to ensure a balanced, representative collection of material relevant to the nature of the subject matter and purpose of the archive concerned. This means different archives will have different selection policies according to the intended use of the collection. There will, almost inevitably, be grey areas where the material could be considered of use to the archive in conjunction with the rest of the collection. Rigid criteria are thus going to be of little use to the archivist; criteria must be flexible and take into account related areas of interest.

4.10 Some archives have a selection staff which concentrates on the areas of acquisition and selection.

Some archives use a system of selection committees, usually an "ad hoc" arrangement whereby committee members are made aware of likely items of interest, or debate the merits from a listing supplied by the archive staff. Such systems normally depend on the subsequent availability of the material and upon the cost of acquisition. Much material escapes the net through this method of selection, but it does have the merit of consultation.

Selection by consultation and committee may be fraught with difficulty when sectional interests appear and conflicts occur between people from different disciplines. In a book on Archive Administration written in 1922, Sir Hilary Jenkinson noted:

> "The archivist is concerned to keep materials intact for the future use of students working upon subjects which neither he nor any one else has contemplated. The archivist's work is that of conservation and his interest in his archives as archives, not as documents valuable for proving this or that thesis. How then is he to make judgements and choices on matters which may not be his personal concern. If the archivist cannot be of use, can we not appeal to the historian - he may seem the obvious person to undertake such a task. As soon, however, as the historian's claims in this connection are investigated it becomes clear that the choice of him as arbiter of the fate or archives is at least as open to criticism as that of the archivist. Must he not be regarded, where his own subject is concerned, as a person particularly liable to prejudice? Surely there will always remain the suspicion that in deciding upon a policy of archive conservation he favoured those archive classes which furthered his own special line of inquiry. The very fact that a historian is known to have selected for an archive is fatal to its impartiality".[75]

All too frequently people eminent in their own fields want everything kept, "in case they need to study it".

Selection should thus be done by the archivist and not by outsiders with pecadilloes and sectional interests. Specially appointed staff in the archive can see the wider implications, and if thoroughly versed in the aims and

objectives of the particular archive are in a good position to select. To be effective, however, they must be carefully chosen, and they should have a set of criteria with which to work.

4.11 The development and variety of sound recordings and sound archives has already been noted. The variety of sound archives extends from the national archives which collect widely, to the regional archive concentrating on conserving material from a particular area, to the specialised archive dealing with anything from ethnic minorities to wildlife recordings or phonetic collections which deal with dialect. The typology of sound archives indicates the different varieties such as music archives, ethnomusicology, radio sound archives, national archives, academic and those in universities, local history collections, and oral history collections which may or may not be of archival propensity. What is oral history today may become archival material tomorrow.

4.11.1 The development of interests is reflected in the membership of the International Association, which has over 400 institutional and personal members. This is a small number by some standards, but it is a much larger number than the members of some other audiovisual archive associations, due to the different subject interests and purposes of sound archives as well as the personal membership category. This variety of collecting institution for sound recordings must be taken into account when dealing with appraisal. The national archive will collect material associated with national events, perhaps the commercial output of recordings, perhaps government archives; the radio sound archive collects material primarily for the purposes of reuse and for reuse potential within the relevant broadcasting company. The specialist subject archive will collect according to its subject interest. For example, the Imperial or Australian War Museums will collect material pertaining to conflict or wars with which the national forces have been concerned.

The type of institution will have to be considered in dealing with exchange and international cooperation, and also when trying to prevent wasteful duplication of effort.

5. RECORDS MANAGEMENT

5.1 Some form of records management is essential to impose order upon records and make them manageable and accessible to future users of the archive, whether these users are researchers, browsers, those with a commercial concern to reuse the material or interested members of the general public.

5.2 Actually little of the material in a sound archive can be followed through from its creation to its ultimate preservation? The idea of records management before the material arrives in the archive is desirable, but seldom achievable.

Records management is concerned with the creation of records at the time when the relevant material is created, or at least with communicating to the creators the necessity for adequate documentation dealing with the identification, maintenance, restoration and use of the material, before the archive necessarily becomes associated with the material involved. Ideally the conventional archivist would like to be in a position to decide at the time a record was produced if it has archival value that the creator would ensure that the record was produced bearing in mind future archival requirements. In the case of sound recordings this would include ensuring that the proper technical standards were achieved in the recording for long term preservation, that the information elicited in an oral history interview was relevant to the programme as conceived, that appropriate related documentation was provided in the form of transcripts and background information, and so on. This is an almost unattainable ideal for many sound archivists. But it is possible in some instances, especially with programmes where the archivist has an active role, such as initiating the recording programme or cooperating with the creators to produce material of archival value. If it is possible in some instances then it should be a goal of the archivist to try to widen the possibilities and the occasions upon which he can influence the creation and documentation of the potentially archival record.

5.3 Should sound archives try to preserve complete collections or representative samples of particular subject coverage? It may be argued that popular music may be of ephemeral interest and only a representative sample should be kept. Certain genres, such as folk music, may once have been a despised section of the recorded output, but now it and ethnic music are studied all over the world.

The challenge to the appraiser is how to predict which of the ephemeral material of today will become either the research material of tomorrow or indeed remain ephemeral.

5.4 Archivists should participate in decisions about how records are stored before they come to the archives. There is a need to influence file organisation, access systems and storage media. These methods will either help or hinder the work of archival preservation. The archive may be in a position to influence the setting up of some systems and of suggesting the level of technical standards which should be achieved or the type of documentation required. Records which conform to these standards can then be transferred to the archive with much of the initial processing and preservation already paid for. This is management of the record at the time of creation or before it ever comes into the archive.

5.5 It must be remembered however that commercial manufacturers are <u>just</u> that - they do not consider or cater for archival needs. They record, experiment, entertain if you will, but not necessarily with the future in mind.

Commercial producers regarded their function as providing an opportunity for a wide audience to hear (and see) the world's entertainers and artists in the comparative comfort of home. This is especially true of recordings of musical works. Sound recordings tend to become a private or personal entertainment. They enable people (rather as video and television today) to listen and enjoy in the comfort of their own homes. Although in the early days of sound recordings, gramophone record societies conducted "public" performances and in some situations still do, it was much more likely that the recordings would be made available either for sale or for loan to listen to at home and in peace - without the distractions of one's neighbours in the concert hall. Therefore we do have to ask in appraising sound recordings for archive purposes just why and for what purpose are we are preserving the material. Is it as an historical document, a cultural object or document, or as a record of fact, or even as a development in recording technique?

Archives may be in a reasonable position to keep up with the acquisition of current or recent material, but historical commercial recordings and the non-commercial recordings pose additional and serious problems.

5.6 Commercial record production began in the 1890s; thus a large number of recordings were made long before many of the national archives were established and began serious collection. This, in turn, meant that a very large number of early recordings did not survive. Most sound recordings were not primarily designed with preservation in mind, but to produce reasonable quality playback combined with low-cost manufacture. Hence the problems presented to the technician for restoration or re-recording.

5.7 Without adequate collections management and the intervention of people the repository of sound recordings itself would experience difficulties and it would become increasingly difficult to locate particular items or groups of items within a reasonable period. Herein lies another argument for selection. Unless holdings have been selected with reasonable care there is little or no point in spending time and money documenting, storing and preserving material which is not of archival value.

There is merit in acquiring as much material as possible in a particular field of interest, especially in the early stages of development of a collection, but once acquired it is bad practice to leave such materials in an unordered state. The archivist has a responsibility to the material itself as well as his 'user'. The material needs processing, conservation, and some form of information retrieval, however basic, should be imposed upon it as soon as possible after acquisition.

An extension of records management is to survey the current record, that is before it is ever offered to the archive for retention. The objective is to identify material which has archival value and to ensure that this material is identified, documented and preserved against the day when it is finally offered to the archive.

5.8 Audiovisual archives are now in a better position to influence and improve by working on standards and guidelines for adequate bibliographic systems as applied to archives, and of trying to achieve wider recognition of the value of control at an early stage, rather than waiting for the unidentified, often incomplete and degraded copy to arrive in the archive. This is not only a matter of self interest but could achieve an economy of labour and release the archivist to concentrate on the maintenance and preservation of the record and the provision of adequate research facilities and services.

5.8.1 The body of commercial recording can be treated in an entirely different way from that of other types of recording.

Commercial records - primarily of music, but sometimes of the spoken word - are made for a wide market and the originals or matrices can be controlled in an archival situation, whether by a national depository or by the production company itself. The matrix is rarely deposited in a separate or independent archive, usually only copies are deposited.

5.8.2 Broadcast materials are created for a particular purpose, and a system of appraisal or selection can later be applied to such materials. Creation of such materials as with many paper records, is for a contemporary or current purpose; the process of selection or appraisal is thus undertaken to determine value for future use, and research.

5.9 Sound recorded content, as has been noted, will also have an influence on collections policy. A discographer for example may wish to ensure that the discography and therefore the collection it is based upon represents all the available material, and also that the material listed will be preserved; hence the necessity for adequate collections management. A discographer or a discography compiler will need information about the location of the material and also, before publishing findings, some reassurance about the preservation of the material to be included and the durability or physical life of the recording medium used. In Archives which initiate their own recordings the eventual retention of the documents can be envisaged and taken into account from creation onwards. Oral history is another area in which some measure of control from the time of creation can be achieved.

5.10 A few statistics may help to illustrate the problems of control. The number of sound archives is approximately 400, ranging from the large national archives to specialised subject archives holding but a few hundred items. This figure does not cover the numerous collections of oral history and private collections of discographers. The Association for Recorded Sound Collections (ARSC) based in North America, has nearly 2000 members, many of whom are private collectors, while the Oral History Society in the UK alone has over 450 members.

5.11 With regard to the recording industry very few countries issue more than 1,000 commercial LPs annually, although a number of countries issue LPs and many archivists argue that one or two copies of each commercially produced recording should be housed within the national archive, if one exists. The figures may become a little blurred when we consider that recordings which could be classified as "national" are manufactured, abroad and the national archives in particular will have to maintain a watching brief on these activities to ensure that they acquire copies of the "national" output.

When one considers non-commercial recording the figures are even more difficult to acquire and the situation becomes less easy to analyse.

For example, the figures for commercially-produced recordings in 1982 in the USA, that is, recordings produced by American companies, were 2,600 long playing records and 2,800 '45s. In 1983 in the UK, 1,700 titles were issued in classical music and spoken word, of which between 200 and 500 titles were in the spoken word category. Some 12,000 titles of popular music were issued.

Table 1.[73]

NUMBER OF NEW RELEASES 1984

COUNTRY	SINGLES	ALBUMS	CASSETTES	CDS
FINLAND	126	88	N/A	N/A
FRANCE	2334	5989	3227	N/A
GERMANY	3006	2639	2029	1218
HUNGARY	47	224	N/A	N/A
ITALY	1163	3617	N/A	N/A
JAPAN	2761	6503	N/A	2097
NETHERLANDS	2600	5000	2000	N/A
NORWAY	1500	3000	N/A	N/A
PORTUGAL	500	750	N/A	N/A
UNITED KINGDOM	5033	5000	5000	1000
USA	2356	1740	1795	1038

5.11.1 The above figures do not take account of broadcast materials. For example, the BBC through its national and regional networks and External Services produces at a conservative estimate, puts over more than 3,000 hours per week.

5.11.2 In addition there are the oral historians who are constantly collecting material for their research purposes, and it would be very difficult to estimate the amount of material which is generated under this heading.

5.11.3 Finally there is the material already in archival custody, much of which requires appraisal or reappraisal.

5.11.4 A brief mention of some of these collections will highlight the problems involved and the necessity for post accessioning selection and reappraisal to reduce and maintain collections in manageable proportions.

The National Sound Archive in the UK holds an estimated 1/2 million discs, tapes and cylinders. The holdings of the Library of Congress is even greater. Arkivet ALB Sweden has 1,100 cylinders, 80,000 discs and 8,000 tapes and cassettes. The US National Archives has 12,000 microgroove recordings, 40,000 radio transcriptions and 12,000 tapes. The Public Archives of Canada holds some 90,000 items. The National Sound Archive of Australia holds more than 1/2 million items, and the Australian Institute of Aboriginal Studies, some 40,000 items. The University of California in Los Angeles (UCLA) has several major collections; the Ethnomusic Sound archive, with 15,000 tapes, the oral history collection 3,000 tapes, and the music library with 18,000 discs. Of the radio archives, Norsk Riksrasting in Norway holds 30,000 tapes and discs in the programarkivet. NOS, in Hilversum, Netherlands, holds 150,000 discs and 50,000 tapes. The Voice of Kenya has 10000 electric discs, 200,000 microgroove and 30,000 tapes.

Such holdings will grow exponentially at an annual rate.

Specialized subject collections may also contain recorded material or the archivist may have conducted interviews which have been edited for public access purposes, but the unedited material has its own value.

5.12 Much of the material being saved is not of intrinsic archival value. The number of extant wax cylinders, Philips and Miller recordings, and wire recordings is not great, and they are also concentrated in a few locations.The situation is different for sound recordings than for film, where there is considerable scope for retaining old equipment in order to replay the film in its original form

and also to transfer volatile film to safety stock. The number of archival sound recordings on unusual formats will only justify the retention of comparatively few items of old playback equipment and the building of one-off machines for restoration of the sound content to acceptable listening levels.

5.13 The documentation of sound recordings includes scripts, transcripts, synopses, summaries, disc labels and gramophone record sleeves. In addition, there may be interviewing questions, project outlines, and outlines of interviewing procedures, related stills, especially in oral history and even artefacts. Newspaper clippings can be used to refer to the material in radio archives, giving more detail of daily events and news broadcasts. Related textual material should be surveyed, and the merit of selecting and appraising material based on textual material which refers to recorded sound materials that have been destroyed, should also be considered, (eg. the use of Hansard in the UK in Parliamentary archives).

5.13.1 Related documentation should not be used as a substitute for the material itself, indeed it cannot be used as a substitute for some recordings such as musical works. In some circumstances it may stand instead of the original recording, either because the original recording has been lost; because it was too lengthy for the archivist to contemplate maintaining and retaining in the archive; or, in fact, was so ephemeral, so much a waste of recording material that it did not even warrant retention.

5.13.2 Documentation of oral history recordings should indicate the reasons for the interviews having been conducted in the first place - that is, why this material was recorded. This may have been to fill a particular gap in the collection or to capture a particular informant's information about a person or event before the inevitable happens. This is sometimes referred to as "active archival collection", and the oral historian and ethnologists in sound archives are prime examples of this type of activity.

5.13.3 The appraisal of the technical documentation of why a recording was restored, of what rerecording process was employed, and of the condition of the original is also an essential part of the appraisal process and information of this type should be kept and accessioned with the recordings.

6. APPRAISAL POLICIES AND PRINCIPLES

6.1 The purpose of appraisal is to determine the long-term value of sound recordings before they are added to the archival holdings and before further work is carried out. This long term value includes the value of the records for administrative, legal, financial, reference or research purposes, and can be extended to include the cultural and artistic value of sound recordings as art forms.

Appraisal policy will have to take account of all these values, and before attempting to formulate any principles it will be worth while looking at several of them in more detail.

6.2 Retention of material is often advocated by people who want everything kept. This is an administrative impossibility due to lack of space and resources, both financial and human, and therefore some form of selection or appraisal is forced upon the archivist from the beginning. Archivists would also question that there is the unlimited time needed to sit through hundreds of hours of material in order to carry out appraisal, let alone to process all of the material and make it available for research. The value of the material cannot ignore the administrative costs of handling and conserving and the costs of storage.

6.3 The basic purpose of selection is to ensure preservation of material relevant to the subject matter of the archive concerned. This means different archives will have different selection policies according to the intended use of their holdings.

6.4 Legal aspects have to be taken into account in dealing with appraisal, and this will include legal deposit. The lack of legal deposit or mandatory deposit laws has had a marked effect, although it is only recently that legal deposit has become an issue for audiovisual materials and very few countries have even begun to approach the issue. The National Sound Archive in the UK, where there is no statutory deposit law, claims a 95% voluntary deposit of commercial recordings, and other organisations use a hit - and - miss system of voluntary deposit. Voluntary deposit does raise the problem of refusal to accept material resulting in the loss of subsequently useful material, a situation of which archives have to be aware. However legal deposit also leads to a necessity for an appraisal policy,

unless the archive is obliged by law to retain everything which is deposited. It should not be made obligatory for an archive to retain everything in this way, otherwise we are back to the situation of keeping everything just because it is available. Many audiovisual archivists have been unenthusiastic about legal deposit for just this reason, for it is they who will have to use their limited financial and human resources in maintaining the material if and when it begins to deteriorate. Archives are not dumping grounds for the benefit of producers who cannot or choose not to maintain their own materials, but many archivists see legal deposit as an excuse for the producers to shirk their responsibility for the materials created, and to turn the archives into mere warehouses for their material.

6.5 The financial aspects of appraisal will include considerations such as the cost of purchase of materials, deposit, storage and subsequent documentation and access facilities for research workers. Reference and research use have to do with the value of sound recordings, but they also have to do with the collections policy of the archive. There may also be regional differences in policy which could be related to the different types of archives, or to archives with different functions, or the differences may relate to the subject content, the type of material, or the purpose of the archival repository.

6.5.1 Selecting material within defined areas of interest of an individual archive raises questions regarding what is in and what is outside the field of interest. There will, almost inevitably, be grey areas where the material could be considered of use to the archive in conjunction with the rest of its holdings. The nature of sound archives may make them much more closely related to appraisal by subject than many film archives.

6.5.2 Selection of sound recordings according to the nature and type of the recorded content will also influence the selection policy.

For example, regarding gramophone records of musical works the question arises as to whether one should keep the entire output, that is, every performance of a work, either as a complete record of the recordings in order to allow comparison of interpretation by different artists, soloists, conductors, orchestras, or as a complete output of a particular artist's work.

6.5.3 This leads to a consideration of the cultural and artistic value of sound recordings. Gramophone record companies may retain a complete archive of the recordings they themselves have produced, whether as an archive or in order to produce reissues on appropriate occasions, such as an anniversary of a composer or artist.

6.6 Moving to other types of sound recordings and in particular those of the spoken word, there are similar problems. There may be reasons such as reissue of material, or the need to study the production of a particular artist or poet, but will it be necessary to keep every version of this material or only a representative sample, including presumably material which is read or played by the author or composer themselves?

6.6.1 The production of oral history material presents additional problems for the appraiser. There is the problem of volume, especially of unedited material. Should tape be edited and then the original lengthy interview disposed of, or should the unedited version be retained in favour of the edited? This involves an ethical problem, but one reasonable solution is to retain the unedited version, especially if the editing has significantly reduced the duration of the interview. Cutting out the hesitations and repetitions is less serious, if arguably mistaken, than retaining only a 5 minute section of a 50 minute interview. However even hesitations and repetitions in an oral history interview have an informational value. They may indicate where an informant is unsure of the facts, or even where he is not telling the whole truth or trying to suppress certain facts.

6.6.1.1 Appraisal of oral history interviews includes selection at the point of origin, that is in deciding what to record, what to investigate, and the purpose of an interview.

6.7 Given that selection is necessary one must both determine who it is who is to select the material and formulate the criteria for selection. As previously noted some archives have selection staff who concentrate on the areas of selection and acquisition, while some archives use a system of selection committees. But selection by consultation and committee is fraught with difficulty when sectional and special interests are promoted by people from different disciplines.

6.7.1 One of the primary qualifications for the archival appraiser is objectivity. The archivist will constantly be assailed by the sceptics who will accuse him of "playing god" and question whether he is qualified to select material for retention and future use. The archivist will certainly need qualifications in order to select materials for the archives, and just as people should be trained to be archivists so they should be trained in the art and craft of appraisal and selection. It is one of the most important skills of the archivist and it needs to be part of any training programme.

6.7.1.1 In addition any archivist should have a thorough knowledge of the subject in order to formulate and implement selection policies. He should be qualified in the subject he is dealing with in order to recognise the true from the false, the genuine from the spurious, relevant subject content and intrinsic value in the particular subject area. It could be argued that a sound archivist with a knowledge of classical music should not select material from the popular scene, although this does not necessarily follow. Many music or sound archivists can do both, but perhaps considering 'horses for courses' would be a useful maxim here. However, this is not to say that a historian should select material for archival purposes, or a musician select music for archival retention, without prior archival training and experience. The people involved should be trained archivists with a background subject knowledge in the appropriate area.

6.8 The snap, crackle and pop of early recordings and the use of recording machinery not of a particularly high standard mean that to make material accessible, in the basic sense of being suitable for listening purposes, the material will inevitably need some "cleaning up". Early film has its problems, but if it was once of good quality this is a good starting point for restoration. The evidence which has survived precludes an easy answer regarding the quality of early sound recordings. The recording may have deteriorated further in use and be difficult to reproduce. Once the material has been cleaned up there is no guarantee that the original quality has been restored; or we may be left with a 'muted', heavily dampened version of the snap and crackle, and loss of the original dynamic range which may not have been wide, but was at least wider than the restored version.

Literature on the technical aspects of sound recordings does exist, but it is often couched in such technical terms as to

be incomprehensible to the layman. As technical consideration is such an important aspect of the appraisal process it is important that the archivist understands clearly the nature of restoration and the results which can be achieved. An article by John Stratton, "Crackle in Recorded Sound",(150) published in July 1970 provides a useful introduction to the problems involved. A more technical work on the subject is that by Pickett and Lemcoe, Preservation and storage of sound recordings, Washington DC, 1959.(111) Later works were to deal with the magnetic tapes, based on polyester or polyvynil chloride tapes which had not yet been introduced, in 1959. Engineers will normally record on high quality tape recorders and the archivist, especially those who initiate their own recordings, should emulate the engineers whenever possible.

6.8.1 Field recordings or oral history interviews tend to be produced on less high quality recordings than music, because of the nature of the recording situation and the necessity to use highly portable equipment in often less than ideal conditions. But the material collected is no less valuable for that reason.

Oral history documents or collections may even be counted as more complete than many archive collections of sound recordings.

Selection should be made with the possibilities of future technology in mind. Other criteria for selection include the determination of value in terms of recording or rerecording technique, subject or artist. Technical specifications always have to be taken into consideration as will the subject content of the material.

6.9 Before discussing some examples of appraisal policies in action it might be as well to take a brief look at some of the general procedures used in appraisal. Appraisal takes a considerable amount of time, as has been noted in the section on records management. But it is critical that a fiscal assessment of the cost of accessioning, organising and preserving the record is maintained. We must begin to attach price tags to selection decisions and such decisions should be documented for referral by future archivists. Fiscal notes are essential additions to the appraisal record. This applies to all records and will include conservation and storage costs.

6.9.1 Some pre-archival control of the records should be exercised, and archivists should participate in decisions about how records are stored before they come to the archives. Modern records management techniques for handling information suggest that there is a need to influence file organisation, access systems and the media on which recording and storage is made. This last point will either help or hinder the work of eventual archival preservation. For example archives should try to ensure that material that will eventually be deposited is recorded on good quality audiotape to minimum technical standards rather than on poor quality audiocassettes. Archives should participate in establishing systems in the areas of technical standards or type of documentation required. The records can then be transferred to the archive with much of the initial processing and preservation already paid for. This is management of the record before it comes into the archive.

6.9.1.1 Selection techniques will vary from archive to archive and may be done at different levels. For example, Rolf Schuursma in an article in "Selection in Sound Archives", analyses two levels of selection which he calls "coarse" and "fine-mesh" selection.(139) Coarse mesh selection is the evaluation of complete collections of recordings without investigating individual records within that collection. Fine mesh selection is based on a record-for-record approach. The first type of selection is not very time consuming and inevitably results in a larger but possibly less manageable collection, especially if the accompanying documentation is less than adequate. It may also result in "a lot of rubbish and only a few valuable recordings". The second method necessitates withdrawing the recording and listening to it, consulting or providing adequate accompanying documentation, and adequate cataloguing.

This fine mesh selection should be applied to records which are offered or come into the archive individually or in small numbers, not extensive collections.

Negative selection does not necessarily mean destruction. The recordings not selected may be stored elsewhere or offered to another more appropriate archive.

The processing of archival records may prove to be prohibitively expensive, especially when the cost of accessioning and cataloguing overtakes that of selection. Selection, as a general rule reduces the number of records

to be stored and catalogued and therefore helps to maintain the collection economically.

6.9.2 Another valid technique for selection in many archival situations is that of "sampling". It is often applied to large groups of materials, or collections of permanently valuable sound recordings. The classic definition of archival sampling as provided by Lewinson:

> "sampling of archives consists in the selection of some part of a body of homogeneous records or files so that some aspect of an organisation's or government's work or the information received or developed by the organisation or government may be represented or illustrated thereby".(98)

Sampling has been used on large series of paper materials, but a similar technique can be more widely used for sound recordings, especially when one considers the huge output of radio broadcasting stations, or the transcripts and monitoring broadcasts of the larger series. The aim of sampling is to carry out a survey on a body of material which is large when compared with the importance of the subject content.

Broadcasting is the major area in which the sampling technique is used for sound recordings, as stated, for example in the policy of the Public Television Archives of the US Public Broadcasting System :

> "with regard to program series, the Archives will generally preserve the first and final episodes and such other episodes as are necessary to document changes in plot, setting, characterization, technique, etc."

Sampling is also used for preserving representative samples of regular news broadcasts; many radio archives will retain only one news broadcast a day, that which is designated as the main broadcast.

6.10 From the foregoing it can be concluded that rigid criteria are going to be of little use to the archivist; criteria will have to be flexible and take into account all related areas of interest. What should first be

investigated are the principles required for proper appraisal of sound recordings. This is the basis on which guidelines should be formulated.

There are several governing principles which should be considered before guidelines can be enumerated.

6.10.1 The premise upon which selection is based is that acquisitions should be actively chosen and not merely passively accepted.

6.10.2 The necessity for selection is forced upon the archivist because of lack of space and resources for preservation and lack of staff for cataloguing. The sheer volume of audiovisual materials being produced make it impossible to preserve everything. But the longer we wait the less resources will be available and the more our conscience will bother us! A well-established and consistently applied appraisal and selection policy is the best solution.

6.10.3 Criteria and techniques should first be defined at the institutional level. The written analysis of appraisal questions and policies is called for as a priority.

Appraisal should be done according to a well-defined policy, based on national collection in a national archive or for a specialised purpose in other types of archives. Defining the policy and making it known will assist potential donors in offering material to the appropriate repository.

6.10.4 Selection principles for sound recordings can be considered under several headings. The most important of these are selecting records which are medium specific, that is presented in the particular medium most appropriate to them. Another principle is selecting material according to the purpose and function of the archive. Finally, the completeness of the recordings should be considered.

6.10.4.1 With regard to the specific qualities of a medium, the concern here is that the sound recording actually has something to say over and above the printed word or the official document. For this reason live interviews and discussions in the spoken word category may be more useful than official speeches. But many discussions

degenerate into confused babble, to which so many "talk shows", or panel discussions on radio bear witness, not to mention proceedings from some of the world's Parliaments where Hansard or the written proceedings is a more comprehensible report. Medium specific qualities also apply to music recordings, as performances cannot be replaced by the printed music.

6.10.4.2 The intent and purpose of the archive implies that archives should collect within a designated area and further that there should be a division of collection policies between archives. Archives should define their collection policies to prevent duplication.

6.10.4.3 The length and completeness of the recordings may have an important bearing on their relevance. Records may be too short or fragmented to provide sufficient useful information, or the materials may be merely commentaries by frequently ill-informed persons. These are the main concerns, but there are others including the importance of the subject, especially its longer term importance. The importance of the subject as social history is frequently the case with spoken word recordings.

6.10.4.4 National and international cooperation between archives is also an important aspect of appraisal. There has been a suggestion that sound archives should contribute towards building archival networks. This emphasises the need to encourage specialisation in particular archives. In order to promote this development, more information is necessary about the spread of holdings. The more we know about what others are holding the more effective collections policies will be. The next stage in this process is cooperative collection policies, and the final stage is a continuing programme of cooperative collection. Selection should ultimately be designed to lead to increased specialisation on several levels, local and regional or even national.

6.10.4.5 This will encompass the idea that sound recordings will be appraised against the total holdings already accessioned within the institution and any gaps identified and the opportunity taken to fill these gaps. A sound archive should normally avoid acquiring recordings which will duplicate the recordings of other archives. This policy is designed to avoid duplication in the storage, cataloguing and preservation costs required.

Given the scope and amount of commercial recordings produced annually, as well as the longer list of unpublished recordings from radio and oral history, a scheme of appraisal on a national level becomes an essential and obvious requirement. This has already been suggested in other media, including the Unesco recommendations drawn up by the Federation of Film Archives (FIAF) in 1980.(154) Cooperation between established national and international sound archives is essential to reduce the amount of duplication in collection, documentation and preservation of materials. Such a network is already being formed in the US for sound recordings, where five institutions are cooperating to produce an index of holdings in 78 rpm recordings. This index will have a use not only for research and also for selection staff in locating sound recordings and helping them to develop and rationalise suitable archive collections by applying tests of uniqueness, by allocating money for preservation facilities, and by eliminating duplication of effort.

6.10.4.6 Archives should be acquiring recordings for preservation as close to the original or of the best quality available. The form of the material acquired is of paramount importance and interest to the archivist once he has decided to acquire the material. The appraiser has to decide whether he is dealing with originals, copies, or copies of copies in various recorded formats. The acquisition of originals will influence the cost of preservation, and a collection of acetate-based tape will require different handling and preservation than the relatively stable vinyl disc pressing.

Preservation has fiscal implications for the archive and the situation may arise whereby the archivist has to investigate the value of one set of records as a substitute for another set which may be invaluable for preservation. In dealing with audiovisual material the impermanence of the modern record is an important consideration. In textual archives many records exist in faded or illegible photostat copies, on deteriorating microfilm and for non-paper records; nitrate and colour film, magnetic tape etc., deterioration of the base on which the record is retained causes analogous problems. In addition modern technology produces records which can be amended or updated, for instance the computer disc or the interactive videodisc, the magnetic tape, and also on media which are fragile and reusable. This presents the need to accession the records before the information disappears.

6.10.4.7 One of the aims of selection is to reduce the volume of material. The use of micrographics offers a reduction of the record to a smaller, more compact storage medium, but considerable caution should be exercised in this area. Poor quality storage media which have been offered in the form of VHS cassettes for film and video material, or compact cassettes for sound recordings, have to be treated carefully. It may appear to be a temporary solution to the storage problem but that is indeed what it is; a temporary solution and not a solution to the continued preservation and conservation of the record. We have been presented with disc technology in recent years, but even here there are important reservations. It may appear that the disc is a suitable permanent storage medium, but there are two major difficulties involved. Firstly, the recording quality offered by the disc often far outstrips the material which is recorded on it, and secondly, the disc carries no guarantee that it will last longer than magnetic tape.

6.10.4.8 Preservation costs are among the most important costs an archive has to bear, costs of staff and technical expertise and equipment necessary to preserve or restore audio recordings are an important consideration when drawing up selection criteria. These costs must be considered in deciding whether to keep recordings in their original format after a archivally acceptable preservation copy has been made; they also are important when considering the concept of intrinsic value.

6.10.4.9 The accessibility of recordings will also influence appraisal. The research value of recordings will only be realised by the records being made accessible for research. Long-term, indefinite or even perpetual restrictions on access and use may reduce the value of the material. This is not always a primary factor in deciding whether to accession material, but it must be taken into account.

6.10.4.10 Other factors which will influence how useful the material will be for future research, and how important the materials are to the archive, will include the uniqueness of the material and its age.

6.10.4.11 A determination of uniqueness, or the degree of rarity of the recording, requires certain prior knowledge in the selector and on the part of the appraiser and involves knowing whether the recordings offered are duplicated elsewhere, either in content or format.

6.10.4.12 The age of the material may prove to be a valuable guideline to its value and importance. But age is relative, and some recordings may be rare because of their survival value or because of their value as survivors on particular formats.

Reappraisal and if necessary de-accessioning are other vital steps in the overall process of appraisal. Records can, and should, be appraised at intervals for several reasons. Passive collection or archival activity is dangerous in the modern age, and reappraisal is an essential tool in the face of passive collection. There are dangers however in making this policy too public. One incensed donor may put an entire collecting programme in jeopardy as a result of a quarrel with an appraisal or reappraisal decision. Alternatively, fashion and ideology could wipe out an important part of the historical record, if reappraisal is carried out too ruthlessly or too soon. Deaccessioning however does not necessarily mean the destruction of records. It can instead have the much more positive result of reuniting divided collections by transferring material to a more appropriate archive.

6.10.4.13 This policy supports one previously discussed, that of national and international cooperation between archives to prevent duplicating collection policies and to conserve resources by concentrating relevant copies in only a few archives. Weeding and discarding are helpful because often material has been acquired over a period of years without ever having had proper evaluation. Many archives have begun as reference collections for one reason or another and only subsequently become archives with preservation responsibilities. Therefore reappraisal becomes an essential tool for rationalising holdings and reducing collections to manageable proportions. Reappraisal may be needed because the original appraisal proves faulty, or standards of appraisal and opinions may have changed as to the worth of the material. Reappraisal is most necessary prior to permanent preservation with all its concomitant costs, or to expenditure of funds for documentation. Not all sound recordings held in an archives will have equal value, and therefore they should not receive equal preservation treatment or storage space. The concept of reappraisal at regular intervals is a healthy exercise in the archival process.

6.10.4.14 Reappraisal may be done at regular intervals. For example, the Public Television Archives in the US have ten-year reappraisal reviews to determine the long-term

significance and value of recordings. Others appraise at different intervals, 6 months, annually, 5 years, 10 years and at even longer intervals. The advantages of this type of programme are that the records keep coming up for comparison with new materials acquired over relatively short intervals. The collection holdings is not allowed to stagnate and to acquire a false value.

6.11 Closely related to the problem concept of appraisal is that of "intrinsic value". Some archival materials have intrinsic value, while others do not, and this includes many sound recordings offered for preservation. When the concept is applied to sound recordings it should be applied at the time of appraisal and selection, so that the recordings can be restored and retained for the value of their subject content, or, in some instances, for their intrinsic value as original recordings on particular formats. For example, sound recordings may have been recorded on deteriorating acetate based tape. If a collection of these tapes is offered to an archive the normal criteria of selection for that archive should be applied; if deemed of sufficient archival value to warrant continued retention, the appraiser may recommend that the recordings be transferred to an archivally acceptable medium and that the originals be destroyed, in much the same way that a film appraiser is forced to make such recommendations for nitrate film. Every sound archivist would quickly recognise those items in his collection which have "intrinsic value": the Mapleson cylinders, the wax cylinders, the Philips and Miller recording tapes and so on, but the deteriorating, not to say dangerously unstable, recording media will have to be transferred and then destroyed. Tapes may not be unstable, just in bad condition and need of restoration. In these cases the "intrinsic value" of the recordings may lead to the decision that they are worth saving until technology has improved to the point that better restoration can be achieved. The appraiser will need to have a knowledge of developing technology in order to make informed decisions in this area, but he would be well advised to seek technical advice in such circumstances.

7. APPRAISAL PRACTICES

7.1 Selection criteria that are in current use vary greatly according to the different needs, functions and acquisition policies of the archives concerned. To arrive at some common denominators a review of several selection policies from different archives with a variety of content and purpose may be helpful.

As with similar studies, all criteria will not be equally applicable to all situations, but the review can lead to a working set of guidelines from which different sound archives may adapt and adopt those relevant to their particular situation.

Five such examples are offered, and while they do not pretend to cover the whole field, they do indicate a variety of circumstances which may assist in developing guidelines.

7.2 The first such example, that of the Open University in the UK, is perhaps, a simplistic one; it is very brief, was developed out of expediency (as indeed so many are), and is applied to a multi-media, specialist situation in an educational distance learning setting. This presents the situation of a small archive which was offered a set of records for preservation. The Open University is a distance teaching institution, the first of its kind in the world, teaching academic course leading to a degree using an integrated system of printed materials, continuous assessment, course booklets, television and radio, and non-broadcast material such as audio and videocassettes. Although hardly in the same league as a large, established archive, it does illustrate a selection policy in action with a small collection. The University recently faced the necessity to decide the fate of its audiovisual components and holdings, including some 5,000 radio programmes and 1,000 non-broadcast audiotapes. This was a matter of expedience due to a lack of storage facility and the necessity to remove programmes no longer required for transmission from the transmission area to avoid confusion. The material was educational in nature and related to a series of accompanying printed materials making up several courses. Responsibility for selection and storage of the material devolved on the audiovisual archive.

Working from the premise that the collection represented the first distance teaching unit using a particular combination

of materials and media, and that the function of the archive was to preserve the integrated units which made up complete courses, as well as the fact that the printed materials were to be included in the printed archive the sequence of selection decisions was as follows:

1. Due to lack of storage space, a definite decision to retain or select had to be made.

2. The nature of the material (that is, unique teaching material) was considered.

3. A decision was made to keep copies of each transmitted programme and to destroy unedited, non-transmitted, and unpublished material. Publication was deemed to include the transmission and inclusion of non-broadcast audiotapes as part of the course materials.

4. Audio materials were transferred to a usable stock within the archive/library, to permit access to the materials.

5. Retention of the original stock; this was deposited in an archive to be kept for future use, transfers and transmission if and when required.

Basically the only appraisal decision taken here was regarding the volume and type of record to be kept. No attempt was made to discriminate between "good" and "bad" programmes, this subject and any other. The "archive", which in effect is more like the collection of last resort previously discussed, stands as a reflection of the products of the first distance teaching institution in the world dealing with a particular combination of materials and methods.

7.3 The ABC Radio Collection in the US National Archives constitutes an example within a national archives which was offered some several thousand items from a radio collection. The ABC Radio (American Broadcasting Company) had to dispose of its material due to a situation familiar to many archivists - the imminent demolition of the storage building.

The material offered probably exceeded the amount which could be absorbed, but the archives immediately applied its principles of appraisal and suggested to the potential donor the type of material which it would accept. These principles were based on General Records Schedule (GRS) 21 of the US National Archives.

The GRS 21 described those audiovisual records which must be offered to the National Archives and which cannot be disposed of without prior permission.

The schedule covers audiovisual records created by or for agencies of the Federal Government, as well as those acquired in the course of business. Audiovisual records more than 30 years old must be offered to the National Archives and Records Service before applying the disposition instructions, which are also included in GRS 21.

From the schedule it is evident that the records of most importance will include those which cover unpublished sound recordings as opposed to the commercially available material, and recordings on a nationwide basis of speeches, interviews, actualities, news, public affairs, radio documentaries, oral history, military recordings and information type programmes. The ABC collection would appear to have been a major acquisition from these guidelines. In addition to these general guidelines the schedule mentions some technical points which are of importance. It specifies that certain physical or technical standards are to be met on deposit. In brief, if material is deposited in the US National Archives the original or nearest generation copy of each sound recording should be submitted, together with at least one copy for reference purposes.

Based on these criteria the ABC collection, with a total of 27000 items made between 1943 and 1971 was offered to the National Archives. The material was of archival value since the subject of the programmes was news and public transmission, and maintenance had been done on the material to produce good recordings.

There was a need for someone, somewhere to take responsibility for material which would otherwise be destroyed.

Based on the general selection criteria these recordings were appraised on the basis of the above indicated criteria. The collection was briefly surveyed and actually accepted in its entirety prior to the appraisal since its ultimate destruction was imminent if a decision to accept was delayed.

After its acceptance the actual appraisal was carried out which reduced the 27,000 item collection to 20,000 items. The specific appraisal criteria required retention of those items that related to:

(1). Significant activities of the US Government and its officials.

(2). Events and topics with national implications.

(3). International news events and topics, especially those involving US foreign relations:

(4). Voices of prominent, famous, or infamous, personalities in all fields of endeavour.

(5). Scientific or technological change, advancement, or achievement.

(6). Sports recordings, limited to coverage of major events, such as Olympic Games and professional championships with famous names involved.

(7). Cultural activities documented in recordings of events or news and information programmes.

The appraisal of the ABC collection indicated that items most likely to be retained would appear in programmes such as the following:

(1). US Government sponsored or produced programmes

(2). Regular scheduled news

(3). News bulletins, or special reports

(4). News commentaries

(5). Public affairs discussion or panels

(6). Interviews, forums or similar programmes

(7). Actualities

(8). Speeches, or hearings.

The schedule also includes a list of categories of material which may be offered immediately to the Library of Congress which has a collecting programme for audiovisual materials.

This GRS, although confined to records of government agencies, demonstrates the need for and provides useful appraisal guidelines. It establishes the fact that reduction in volume of a huge collection is possible and feasible, within certain parameters. It makes clear that it is not necessary to accept everything, but that reasonable selection and elimination can be expected to take place based on accepted principles.

Incidentally, in accord with the best archive principles of not unnecessarily duplicating other archives holdings, the material not accepted by NARS was offered to other possibly interested institutions.

7.4 A third example is the appraisal process which occurs at the US National Archives as applied to all recordings which may be offered to that institution. For these general guidelines we have GRS 21 itself which is worth quoting as one of the few examples which exist for the sound, or indeed, for any audiovisual archivist. This GRS will probably not suffice for archives with a totally different intention and purpose, but as one of the few stated principles it is worth careful consideration in formulating suitable guidelines for the general archival appraisal of sound recordings.

The Schedule is not quoted in its entirety, but rather paraphrased in sections. A full text is published in the IASA publication, Selection in Sound Archives[66] pp 58 - 62.

GENERAL RECORDS SCHEDULE 21

Audiovisual Records.

Scope.

This schedule covers audiovisual and related records created by or for agencies of the Federal Government as well as those acquired in the course of business. Audiovisual records more than 30 years old must be offered to the National Archives and Records Service before applying disposition instructions set forth in the schedule. (This is designed to ensure that material is not destroyed without first having recourse to the National Archives. It implies that the potential donor, before destroying his material, will offer it to the archives for permanent preservation. Thus although legal deposit does not apply it can be achieved after the event).

Audiovisual records include still and motion picture photography, graphic materials, and sound and video recordings. Related documentation includes:

Production files or other files documenting the creation, justification, ownership and rights to the records as well as finding aids used to identify or access the records.

(There is then a list of exclusions)

Record Elements.

For each type of audiovisual record the specific record elements are listed.

Disposition Instructions

The word 'destroy' is used to authorize the destruction of data or information. Erasable media such as magnetic tape should be reused whenever practical.

The instruction "Submit SF 115" requires that the records be included in either an agency's comprehensive records schedule or have a specific request for disposition attached.

The specific schedule for sound recordings follows:

SOUND RECORDINGS

RECORD ELEMENTS

a) Conventional mass-produced, multiple copy disc recordings: the master tape, matrix or stamper, and one disc pressing.

b) Magnetic audio tape recordings (reel to reel, cassette or cartridge): the original or earliest generation of each recording, and a dubbing, if one exists.

ITEM. NO.	DESCRIPTION OF RECORDS.	AUTHORIZED DISPOSITION
1.	Recordings of meetings made exclusively for notetaking or transcription	Destroy immediately after use
2.	Dictation belts or tapes	Destroy immediately after use
3.	Pre-mix sound elements created during the course of a motion picture, television or radio production	Destroy immediately after use
4.	Library sound recording	Destroy when no longer needed
5.	Daily news recordings available to local stations	Destroy after 6 months
6.	Duplicate dubbings over and above those needed for preservation	Destroy when no longer needed
7.	Agency sponsored radio programmes for public broadcast	Submit SF 115
8.	Agency sponsored radio news releases and information programmes	Submit SF 115
9.	Agency sponsored radio public service announcements	Submit SF 115

etc.

The list also includes oral history collections, for which an SF 115 should be submitted. In addition the related documentation is taken care of, being treated in the same way as the audiovisual record to which it refers.

Over and above the appraisal guidelines for the materials covered by this schedule, there is a further list of audiovisual items which may be destroyed, either because of their lack of technical quality, their ephemeral value and/or use, or because they already duplicate items available in the collection, or because they do not add to the record or the research value of the particular archive involved.

It should be stressed that these are only guidelines which may lead to recommendations for disposal; in the best tradition of archival appraisal they are not hard and fast rules, only a basis upon which to construct a policy. To return again to the schedule:

Physical types of audiovisual records that may be destroyed.

1. Audiovisual records that are extensively damaged.

2. All nitrate or diacetate motion pictures, or acetate audiotape recordings once an acceptable preservation copy has been made.

3. Incomplete sets of audiovisual records such as motion pictures wihout sound or visual track, incomplete audio recordings such as those with missing sides or tracks. This also includes outtakes and discards (but not unedited material) that lack proper identification.

4. Duplicate material.

5. Audiovisual records which are technically inferior or unusable, including inaudible or unintelligible recordings.

General subject-matter categories for audiovisual records that may be disposable.

1. Audiovisual records whose subject matter is transitory in nature or purely of local interest. For example social gatherings, athletic events, or other activities not directly related to Federal agency operations or responsibilities.

2. Scientific, medical, or engineering research films, videotapes, or sound recordings where similar data or findings are available in another format such as a report or publication.

3. Audiovisual records documenting low level administrative staff functions and ceremonial activities showing or recording award presentations and commendations.

4. Highly technical instructional audiovisual items or managerial or personnel training films/videotapes/audio recordings dealing with information or techniques that are widely available from other sources such as text books or technical manuals.

5. Audio/video recordings of auditions, rehearsals, promotions, voice tests, recorded segments and bands for inserts.

6. Audiovisual records of public relations or informational press activities of persons who are subordinate to heads of agencies.

7. Audiovisual records of interviews and panel discussions, lectures, or other items lacking in pictorial or audio information.

8. Radio or television spots, trailers, commercials or advertisements which by definition are too short to offer much in the way of research value.

9. Foreign language versions of motion pictures/videotapes for which English language versions exist, unless the foreign language was the original language of production.

10. All textual finding aids and production case files for disposable audiovisual records.

There are perhaps in this listing some items which many an audiovisual archivist would question, but this GRS represents one of the first attempts to produce workable

guidelines for appraisal. Not all recommendations apply to all situations, but the intention of this publication, as stated, is to encourage discussion of suitable guidelines and further recommendations and adaptations can always be made to fit these guidelines to specific situations or to a wider application.

7.5 A fourth example is the selection criteria which have been drawn up to cope with a radio archive, that of the BBC Sound Archives in the UK. Radio archives, have an even greater problem of retention than most archives. The number of broadcast hours of the BBC is estimated, conservatively, at 3,000 per week - that is 150,000 hours a year of all types and variety. Much of this material may be required in the future for re-broadcasting purposes.(79)

Radio archives have a primary obligation to the parent production company, and have to tailor their appraisal and selection policies to the requirements of the company in order to retain material which reflects the history of the particular company, provides material for future broadcasting needs and also provides a sufficiently wide coverage in order to fulfil these needs.

As a result radio archives, including the BBC, establish their own criteria which can be put simply in the form of a series of questions such as the following:

1. Is the recording likely to be of use in future broadcasts as primary source material? Does it illustrate a particular person, event, social attitude or change in speech or music?

2. Does the recording possess significance in sound, over and above the information and/or style of the script?

3. Does the library possess similar material and, if so, do the new recordings increase the value of the existing collection by providing examples, improved performance, or better technical quality?

4. Is the recording technically suitable for preservation? (Here a balance has to be made between the intrinsic value of the content and the technical quality of the recording.)

5. Are there copyright, contractual or other restrictions on the use of the recording? If so, is the material of sufficient importance to merit preservation despite the difficulties limiting or preventing use, which may be temporary and removable at a later date?

6. Should the recording be selected in whole or in part?

These selection policies are designed to result in the retention of material in the following categories.

- Events
- Voices and reminiscences of famous people
- Social history
- Miscellaneous documentary and general interest material
- Linguistic material including dialect and accent
- Drama and entertainment programmes
- Music of all kinds
- Sound effects, natural history and authentic documentary sound.

The overall aim of a programme archive is to reflect the output of the broadcasting institution involved. The procedures of selection in following some of these principles are among the most demanding of the radio sound archivist's activities and it may be worth briefly exploring these procedures.

The staff of the BBC Sound Archive use two principle appraisal methods: selection according to established criteria and sampling.

Selection procedures involve checking scripts, transcripts, copyright and performance details and other production details in order to break the material down into manageable subject or programme areas. Scripts of news programmes are scrutinised in the same way. Once material is broken down into large subject areas listening becomes more realistic, especially selective listening.

Sampling is used for the regular day-to-day programmes and provides a useful reflection of the company's output.

The selection policy only works effectively if there is close contact between programme makers and the selectors. This contact helps to provide related documentation in sufficient detail to indicate the reuse potential of the material. As one of the main functions of the archive is to reflect output and provide material for future use, it is essential that selectors and producers work together with common aims. The BBC Sound Archive estimates it issues some 40,000 recordings a year to the programme makers. This is testimony of the close cooperation which exists in the radio company between archival and production staff. Although production staff do not do the actual selection, they are involved in making recommendations about much of the material which the selection staff can consider in the light of material already in the archive.

7.6 A fifth example is that provided by the Imperial War Museum in the UK.[67] The purpose of the Imperial War Museum is to collect, preserve and display material and information bearing upon the two World Wars and other military operations since 1914 in which Great Britain or other members of the Commonwealth have been involved.

The Sound Records Department of the Museum collects, preserves and display all recordings and transcripts relating to this purpose of the Museum, and has a particular responsibility to preserve the individual viewpoint of the events. The recording medium is a particularly effective method of preserving this viewpoint. Further, the department has a responsibility to preserve everything that can be saved.

This suggests a universal acquisitions policy but restrictions have to be placed on this policy due to the familiar reasons:

- Lack of space
- Lack of oral history interviewers
- Lack of staff and equipment for preservation work
- Lack of staff for cataloguing
- Lack of resources, reflected in all the other items in this list
  And finally a need to ensure a balanced collection. By taking everything, as one of the above aims implied the Museum should, the collection could easily become unbalanced and not reflect the purpose of the Museum accurately.

In view of these restrictions certain priorities in the subject areas to be covered have been identified. These include:

1. Relevance of subject to the Museum's brief

2. Demand for material relating to the subject

3. Success of the collection as currently stated to meet that demand both now and in the future.

4. Number of people involved in the events which, taken together, form the subject matter. This is of relevance if the number is large and therefore represents a subject of a common central experience. It can also be of relevance if the number is small, but the subject represents a rare and significant experience.

5. Number of people involved in the events of the subject matter who are still available to relate their experiences and the length of time for which they will continue to be available. This factor can raise the priority of the subject if the source of recollections is about to disappear.

Although these subject priorities exist material, which is offered to the archive is examined according to more general selection criteria in the first instance before being compared with the list of priorities. The more general selection criteria of the Museum can be summarised as follows.

Relationship of the subject matter to the collection.

The topic should be relevant to the Museum's brief. Is it defined within the terms of reference, or should it be deposited in a more appropriate archive?

Is there an existing demand for the topic?

Will there be a future demand for the topic?

Is the topic of lasting importance?

Is the topic already covered sufficiently by the collection?

Relevance of the sound medium

Would the subject matter be better preserved in another medium?

Rarity of the recording

Could the recording be easily duplicated or reacquired at a later date or is there risk of permanent loss?

Secondary characteristics of the recording

Are the personalities in the recording of interest in their own right?

Minimum technical standards

Does the recording conform to the minimum technical standards laid down by the Museum?

Limitations on use

Does copyright provision place unacceptable restrictions on the use of the material?

The above five examples illustrate the nature of appraisal criteria for sound recordings in relation to the objectives of a number of different types of repositories. They also illustrate the problem of attempting to formulate comprehensive appraisal guidelines for all types of materials and all types of repositories.

8. CONCLUSIONS AND GUIDELINES.

8.1 Appraisal is necessary for the determination of the long term value of the sound recording. Although sound recordings are relatively new as archival materials, the value of sound recordings when collected either separately or in conjunction with printed and other audiovisual documents is being increasingly recognised. Controlled or disciplined appraisal will make possible selection between and within individual collections.

8.2 Selection using appraisal techniques and based upon established criteria and guidelines is essential because of the volume of material both to reduce collections to manageable proportions and to prevent a waste of financial and human resources in retaining, documenting, preserving and restoring material which has no long term value.

The international body of archives devoted to sound recordings, IASA (International Association of Sound Archives) has issued a publication on the selection of material for sound archives, but has not drawn up guidelines for appraisal and selection. The following considerations offer a basis upon which more specific guidelines may be developed.

8.2.1 Total conservation is impossible for sound recordings because of the volume of material and resources required for this restoration and conservation. Additional factors which make total conservation unattainable include the technical problems of deterioration in existing recordings and the non-survival of many early recordings. Most early recordings were made for the commercial market, or for experimental reasons rather than for archival retention. Once the initial market was satisfied no consideration was given to retaining the recordings, especially as very few archives came into existence until many of the early recordings had deteriorated beyond recall.

8.3 Archival acquisitions should be actively chosen and not passively accepted. Passive acceptance implies that the archive is a repository for all materials, not a cohesive collection of material relevant to the function and purpose of the archive involved.

8.4 Selection principles are needed in the area of sound archives and sound archivists should define and agree upon these principles as a matter of priority.

Now that a variety of sound archives have been established there is a need to encourage greater cooperative collection on several levels, regional, national and international, in order to rationalise the collection of sound recordings. This will have consequences for the collection policies of individual archives and, if fully carried out, should lead to specialised collection by archives. The results should be more effective use of available financial resources for preservation, and the use of such funds in a more systematic manner for restoration over a wider area of subject and material by concentrating resources in specific archives for special areas of sound recordings and by preventing duplication of effort and restoration.

8.5 Sound archives should be preserving sound recordings which are specifically relevant to the medium itself. Some events, happenings or recordings are better recorded and displayed in sound material than on film or television or in the printed document. Such recordings need to be given high priority by all types of sound archives.

8.6 As a general principle sound archives have an obligation to ensure preservation of the recording by selecting the best quality copy available. However technical developments have not yet reached the stage at which it can be said that a sound recording can be preserved indefinitely. This has implications for preservation of records for their intrinsic value, that is the original recording, and will influence storage, restoration and preservation policies. Nevertheless an archive has an obligation to retain original recordings against the day when technology improves.

8.7 Appraisal is one of the most important and challenging tasks for an archivist. Appraisal should be carried out according to a well defined selection policy. Some such policies exist but few have been published outside the institutions for which they were devised. A greater exchange of ideas and information, as well as discussion of existing policies is necessary leading to a greater number of published policies and to increased cooperation among archives to achieve an international network of collecting institutions and to improve the general exchange of information, collection and preservation of sound recordings.

It is obvious that rigid formulae are not going to suffice in this situation. Archival appraisal will undergo change according to the needs of the times, the purposes of the archive concerned, and the nature of the materials stored within the archives.

But some common agreement has already been achieved, and the following guidelines for the selection and appraisal of sound recordings are offered for consideration and adaptation to the particular circumstances of the many different types of sound archives which exist.

8.8 The archive should select material according to the needs, purposes and intentions of the repository and with the ultimate "user" in mind. Subject areas of interest may be narrow, but the related or "grey" areas should not be overlooked in selection.

8.9 Material for archival preservation should be either unique to a collection or not duplicated in several existing collections when there may be a waste of resources in preserving the same thing. Legal deposit is a rarity and one archive cannot assume that any other is collecting in a particular area or country of origin. In these circumstances it becomes important for all sound archives to have an acquisitions policy and appraisal criteria and to discuss these with other archives, both nationally and internationally, to ensure that valuable material is kept somewhere, but not in each archive.

8.10 The principle of selection according to the quality of the recording is a relative one and is closely related to the unique quality of the material. In theory the best quality material should be selected, but when the only available material is of poor quality its unique nature overrides the principle of quality. A closely related factor is that of technological change which may mean a recording is only available on an obsolete carrier. Archives should not select on the basis of whether or not they can replay material - this is library selection, when the only material in a library relates closely to the playback machinery available either in the library or in the user's home. An archive must consider other qualities of the material and if it is essential to the collection, but on an unplayable medium, an archive should transfer it to a usable medium.

Technical appraisal, that is the selection of material on the basis of quality and whether or not to keep all the old material against the day when technology improves to the extent that better preservation recordings can be produced is a basic consideration. The potential technical improvement of recordings has implications for appraisal, including intrinsic value.

8.11 Some material may be "unusable" because of copyright or contractual restrictions. However copyright can lapse and one of the functions of an archive could be expressed as outliving copyright and other such restrictions. The material is held for the restricted period (it may be possible to use it under certain conditions during such a period) and when copyright expires the archive will be able to grant access. Copyright restrictions should not necessarily deter selection of valuable items and the appraiser must think beyond the temporary restrictions.

8.12 Selection at the point of origin is a neglected area. The sound archivist who initiates a recording needs to consider why and how the material is being recorded and whether or not to edit the recording and what should be its ultimate disposition. Related to this consideration is the concept of pre-archival control, that is, controlling the record and documentation of the record before the material enters the archive. This can be achieved by influencing record companies to label material fully and by requiring full documentation to be presented as well as a technical record of the processes involved in recording the material which is deposited. It should also be required that the recording meet a minimum technical standard.

8.13 The timing of selection is also an important consideration. Some material needs to be kept for only short periods while checks are made on existing material which it may duplicate. Other material should be looked at retrospectively after a period or periods of time. Most archives which practice selection will be found to use this policy of periodic reappraisal.

Hindsight is a useful mechanism and it can be achieved by adopting a long-term retention policy. Optimum selection decisions are best taken after a "decent" interval.

The concepts of reappraisal and deaccessioning should be incorporated into the repository's policies and practices.

An archive will collect material in accordance with its purpose and objectives, but as these may change at intervals the selection principles will have to be flexible to accommodate these changes. Selection principles themselves should therefore be subject to periodic review and re-evaluation.

8.14 One of the main principles of selection is objectivity. Selection staff should be as objective and free from bias as possible, within realistic parameters. A collector may be subjective in his approach, but an archivist should be seen to be objective and a set of principles is needed here to provide a framework for collection.

8.15 Selection out of the collection can have many end results. It may mean the destruction of the original record and retention of the original. It may mean the transfer of the material to another archive which has a more appropriate collection to house and manage the material involved, eg, transfer of material dealing with war and conflict from a national archive or broadcast company to a war museum or of ethnographic material into a specialist collection or archive.

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